

	<p><b>BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA</b></p> <p><b>CLASS – VIII</b></p> <p><b>SUBJECT – SCIENCE ASSIGNMENT ANSWERKEY</b></p> <p><b>CHAPTERS – FRICTION   CHEMICAL EFFECTS OF ELECTRIC CURRENT   SOUND   REPRODUCTION   REACHING THE AGE OF ADOLESCENCE</b></p>
	<p><b>SECTION – A (MCQs &amp; Assertion/Reason)</b></p> <p>1. (b) Rubber increases friction due to better grip</p> <p>2. (b) Carbon electrodes in salt solution (Salt solution is a strong electrolyte → strongest chemical effect)</p> <p>3. (b) Amplitude (Loudness depends on amplitude, not pitch.)</p> <p>4. Assertion–Reason  Assertion: Girls generally enter puberty earlier than boys. Reason: Hormonal changes begin at different times in different individuals.  ✓ Correct Answer: (A) Both are true and Reason correctly explains Assertion.</p> <p>5. Assertion–Reason  Assertion: Internal fertilisation provides better chances of embryo survival. Reason: The embryo is protected inside the mother’s body during development.  ✓ Correct Answer: (A) Both statements are true and Reason explains Assertion.</p>

### SECTION – B (Short Answers)

6. Echo in halls but not in classrooms

Large empty halls have hard, smooth surfaces → reflect sound strongly → clear echoes.

Furnished classrooms have curtains, furniture, soft boards → absorb sound → no echo.

7. Bicycle moving slowly on muddy ground

a) Type of surface: Muddy surface is irregular → more friction → slower motion.

b) Rolling vs sliding friction: Mud increases sliding friction on tyres → more resistance.

c) Lubricants: Oil on chain reduces friction → smoother, faster pedalling.

8. Electrolysis of copper sulphate

Ion movement:  $\text{Cu}^{2+}$  ions move to the cathode,  $\text{SO}_4^{2-}$  to the anode.

Discharge of ions:  $\text{Cu}^{2+}$  gains electrons → becomes copper metal.

Deposition: Copper deposits on cathode → fading of blue colour.

Importance: Used in electroplating to protect metals (jewellery, taps, tools).

9. Changes in a 13-year-old

a) Hormonal changes: Increased secretion of testosterone/estrogen.

b) Secondary sexual characteristics: Height, muscles, voice change, hair growth.

c) Endocrine system: Pituitary stimulates other glands.

d) Hygiene & diet: Prevent infections, ensure healthy growth, manage sweat/oily skin.

-

### **SECTION – C (Case Study)**

10.

1. Friction Zone:

Sandpaper → highest friction

Polished tiles → least friction

Roughness determines friction.

2. Electric Conductivity Table:

Lemon juice (acidic electrolyte) → high conductivity → bulb glows bright

Tap water → fewer ions → dim glow.

3. Sound Station:

Metal rod vibrates with larger amplitude → louder sound

Metals transmit sound better than wood.